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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,067	03/08/2001	Fumio Ohtomo	1710995	5284

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CHAPMAN AND CUTLER
111 WEST MONROE STREET
CHICAGO, IL 60603

EXAMINER

LUU, THANH X

ART UNIT PAPER NUMBER

2878

DATE MAILED: 01/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/802,067

Applicant(s)

OHTOMO ET AL.

Examiner

Thanh X Luu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 December 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4 and 7-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4 and 7-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 03 December 2002 is: a) ☒ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

This Office Action is in response to amendments and remarks filed December 3, 2002. Claims 4 and 7-9 are currently pending.

Drawings

1. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on December 3, 2002 have been approved. A proper drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The correction to the drawings will not be held in abeyance.
2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the third GPS unit of claims 4 and 9 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Examiner suggests at least providing the terms "GPS" within the title.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the

art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 4 and 9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Examiner believes that Applicant has failed to describe an embodiment in which the second GPS unit is disposed at two different positions in combination with a third GPS unit (combination of claims 8 and 9). As understood, the two are alternative embodiments and are not disclosed as a combination as claimed.

In response, Applicant should point out sufficient support for the combined embodiment in the specification or amend the claims appropriately.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 4 and 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 8, it is unclear in its given context what distinguishes "a position of said second GPS unit disposed in the radiated direction of said guide laser beam" from "a position of said second GPS unit disposed in the radiated direction of said guide laser beam *to reflect* said guide laser beam." That is, since the second GPS unit is disposed in the same radiated direction, it is unclear how in one instance the laser beam is not reflected and in another instance the laser beam is reflected. As

understood, Examiner believes Applicant intended to claim two separate and distinct radiated directions.

Regarding claim 9, it is unclear if "a direction", "an angle" and "said obtained angle" refer to the same direction, angle and obtained angle as claimed in claim 8 or a different direction, angle and obtained angle.

Claims 4 and 7 are indefinite by virtue of their dependency on an indefinite claim.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4 and 7-9, as understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (pages 1-3 of Applicant's specification and Figure 13), hereinafter, AAPA, in view of Otomo et al. (JP Publication 11-256620, published September 21, 1999, see translation), hereinafter JP'620.

Regarding claim 8, AAPA discloses (see Figure 13 and pages 1-3 of the specification) an apparatus for setting a guide laser beam, comprising: a guide laser beam radiator (6) for rotatably radiating a guide laser beam; a first unit (8) for providing a reference position of the radiator; a second unit (11, 12) for providing a direction of radiating of the radiator; and wherein the first unit provides the reference position for the guide laser beam radiator, the second unit is located at a first position (at 11) to specify a direction in which the laser guide beam is to be radiated from the reference position;

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the second unit at a second position (7B) specifies the actual direction of the radiation of the guide laser beam, whereby an angle (gradient) at which the laser beam forms from the direction in which the guide laser beam is to be radiated to the actual direction is determined (see page 2, line 21) and the actual direction is set in the direction of the guide laser beam is to be radiated based on the angle (see page 2, lines 20-25). AAPA detects the positions of the second unit with the first unit. AAPA does not specifically disclose a reflector, and first and second GPS units to detect the positions as claimed. However, reflectors are well known in the art. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a reflector together with the second unit in the apparatus of AAPA in view of JP'620 to provide better visibility. Further, JP'620 teaches (see Figures 1 and 5) of a device for controlling the setting direction of a guide laser beam (4) having a first GPS unit (68) for detecting a reference position, a second GPS unit (80) on a pole for detecting a position. JP'620 further teaches (see paragraph 0045) using the detected positions to calculate an angle to tilt the guide laser beam (4) in a desired direction. JP'620 also recognizes (see paragraphs 0009 and 0052) that GPS units allow for more accuracy, precision in detection, faster and easier operation. Thus, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide first and second GPS units in place of the second units in the apparatus of AAPA in view of JP'620 to provide more accurate position data and improve the direction setting operation.

Regarding claim 7, AAPA in view of JP'620 discloses the claimed invention as set forth above with regard to claim 8. AAPA and JP'620 do not specifically disclose the

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guide laser beam is operated to scan under an optical remote control unit. However, optical remote control units are notoriously well known in the art (e.g. television remote control). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide an optical remote control of the guide laser beam in the apparatus of AAPA in view of JP'620 to reduce the time it takes to manually operate the guide laser beam and improve the direction setting operation.

Regarding claims 4 and 9, JP'620 further discloses (see Figures 1 and 5) each GPS unit (68, 80) are connected to a radio communication unit (10, 81) for transmitting a position data; the guide laser beam radiator (1) includes a receiver for receiving the position data and arithmetic means (11) for calculating the direction to set the guide laser beam radiator. JP'620 does not specifically disclose a third GPS unit as claimed. However, the number of GPS units being used is a matter of design choice. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide a third GPS unit in the apparatus of AAPA in view of JP'620 in order to eliminate the need to move the second GPS unit, and thus speed up the beam setting procedure.

Response to Arguments

10. Applicant's arguments have been considered and are found not to be persuasive. Applicant asserts that JP'620 detects the position of a survey machine and thus is different from the claimed invention. However, Examiner has only used the JP'620 reference to teach that GPS units allow for positions to be more easily and reliably detected. Applicant has failed to give reasons why it would not have been obvious to a

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person of ordinary skill in the art to combine *AAPA in view of JP620*. Thus, as set forth above, this rejection is proper.

Conclusion

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is (703) 305-0539. The examiner can normally be reached on Monday-Friday from 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Porta, can be reached on (703) 308-4852. The fax phone number for the organization where the application or proceeding is assigned is (703) 308-7722.


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

txl
January 21, 2003


Que T. Le
Primary Examiner